Conducting monetary policy in a small open economy under globalised capital markets: the experience of the Czech Republic

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1. Introduction

Price developments in small open economies are often significantly influenced by factors beyond the reach of monetary policy. These factors include food and energy prices, and capital flows, which can have a large impact on the exchange rate. Transition economies which have achieved macroeconomic stability, and liberalised capital flows and financial markets, have usually faced increased inflows of FDI (as they transform from extensive state ownership to private ownership), and to a lesser extent debt capital (as their nominal interest rates are higher than in the advanced economies). These inflows pose a dilemma. On the one hand, they enable faster development and integration with the advanced economies. On the other hand, they lead to strong appreciation pressures which, while contributing to disinflation pressures in the short run, may lead to a loss of competitiveness, growing external imbalance and, ultimately, depreciation and higher inflation.

Given the large impact of exchange rate fluctuations in small open economies, a fixed exchange rate regime was traditionally thought to be appropriate. However, liberalisation and globalisation have rendered fixed exchange rate regimes vulnerable to speculative pressures, which may make them very costly to sustain. For this reason, many countries now employ more flexible exchange rate regimes.

Where capital inflows are predominantly equity rather than debt, they may be fairly insensitive to interest rate fluctuations. Central banks therefore often intervene in the foreign exchange market to affect exchange rate fluctuations. However, as doubts exist as to the long-term effects of such interventions, central banks also apply non-standard instruments, such as the "privatisation account" in the Czech Republic.

The rest of this paper describes in more detail how globalisation and capital inflows have influenced monetary policy in the Czech Republic. Sections 2 and 3 summarise experiences in periods of strong debt and equity inflows respectively. The fourth section deals with a package of measures used by the Czech National Bank (CNB), following an agreement with the government, to curb the subsequent appreciation pressures. Section 5 looks ahead to the interaction of capital flows, the exchange rate and monetary policy following the accession of the Czech Republic to the euro area. Section 6 concludes with a summary of the CNB's experiences of managing monetary policy in the face of strong capital inflows.

2. The CNB's monetary policy during strong debt capital inflows

The CNB and its predecessor were aware of the significant influence of the exchange rate on prices in a small open economy, and therefore used a fixed exchange rate as the nominal anchor from the beginning of the reform period (January 1991). Selection of a reliable nominal anchor was especially important given the massive price liberalisation and the transitional nature of the Czech economy, which foreboded many internal shocks. In addition to the exchange rate, there was targeting of monetary aggregates (first the total volume of credit and soon after the M2 money supply). The strategy of targeting two, potentially controversial, nominal variables proved effective initially as capital inflows were not excessive. As macroeconomic stabilisation gradually dispelled the distrust of foreign

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investors and financial markets became less regulated and more liquid, from the second half of 1994, capital inflows strengthened and it became increasingly difficult to achieve the dual targets.

As Table 1 shows, initially (until 1996) private debt capital inflows were prevalent, benefiting from the positive interest rate differential and the low exchange rate risk in the fixed exchange rate regime. Larger and well-established domestic corporations and foreign-owned companies acquired cheaper credit directly abroad, while smaller and less known companies turned to domestic banks for credit. Domestic banks drew money from abroad and onlent it to these companies. The attractiveness of Czech koruna investment also increased foreign investment in the money market and, to a lesser degree, also capital market instruments. The inflow of capacity-creating FDI grew at a markedly slower rate in this period, partly due to the absence of investment incentives. There were only relatively minor sales of state property to foreign concerns, apart from the privatisation of when SPT Telecom in 1995. The inflow of capital into the stock market trended down over time due to the poor transparency and lack of credibility.

Table 1

Long-term structure of capital inflows to the Czech Republic

In billions of CZK

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	88	97	218	114	34	94	107	191	173	367
Foreign direct investment	16	22	67	35	41	116	216	191	208	296
Sales of state property	9	4	37	1	1	4	40	35	61	126
Reinvested profits						6	24	37	58	89
Equities	26	13	24	15	14	39	–45	–20	37	–17
Debt capital	46	63	127	64	–20	–60	–65	21	–72	88
State institutions	1	–2	–6	–16	–4	–11	–2	–7	11	29

The inflow of capital enabled a faster move to convertibility of the Czech koruna: initially internally,[2] and in 1995 externally, for operations on the balance of payments current account and some operations on the financial account. These steps, as well as the growing current account deficit, absorbed part of the capital inflows. But as they increased even further, the CNB had to withdraw the surplus foreign exchange from the market in order to keep the exchange rate within the narrow fluctuation band (±0.5%). In doing this, however, it issued new korunas, which had to be sterilised later, so that it could fulfil the M2 target.[3] This sterilisation in turn pushed up interest rates, which stimulated additional debt capital inflow that had to be withdrawn from the market … and the whole cycle started again. Monetary policy based on the targeting of two nominal variables in conditions of mostly liberalised capital flows was falling deeper and deeper into the sterilisation trap, leaving less and less space for managing the accelerating domestic demand. Indeed, the two intermediate targets were eroding the effectiveness of monetary policy. (By contrast, the implementation of monetary policy has been broadly consistent with the approach employed by most advanced central banks; Box 1.)

[2] An important step was the gradual deregulation of access by individuals to foreign exchange. The annual limit for purchases of foreign exchange by individuals was increased, gradually at first, and then, from 1995, radically (from CZK 12,000 to CZK 100,000). Eventually, after the introduction of internal convertibility for operations on the current account, it was completely abolished.

[3] M2 growth was increasingly influenced by foreign money creation (the share of net foreign assets in the growth of money supply grew from 45% in 1993 to 80% in the last quarter of 1995), as well as by the domestic credit issuance generated by surplus liquidity in the banking sector and the related willingness of banks to also grant credits for less credible projects.

The CNB tried to neutralise part of the capital inflows by prepaying all loans from the IMF, having the government transfer privatisation proceeds from commercial banks to it, shifting from clearing to a convertible-currency payment system with Slovakia, introducing more stringent rules for foreign exchange transactions with its clients and, for a time, limiting short-term open positions of banks with non-residents.[4] Also considered at this time, and allowed for in the new Foreign Exchange Act, was requiring a proportion of funds borrowed from abroad to be placed in an interest-free account with the CNB. However, as this idea was not supported by the OECD or other international institutions, it was not introduced. The CNB also tried to slow the money supply, without pushing up interest rates, by increasing required reserve ratios, but this strategy was limited by concerns about the impact of this implicit taxation of the financial performance of banks.

Box 1

Monetary policy in the Czech Republic since the mid-1990s

The CNB's monetary policy has been implemented in an environment of surplus liquidity. Regular repo tenders have been used to set broad liquidity in the banking sector. Their maturity has varied. Initially it was one to two weeks; in early 1997 one year was added, from 1998 only two weeks and three months were used, and now only two-week repos are employed. The declared repo rate, which serves as the maximum at which banks' bids can be satisfied in the tender, has been the key monetary policy rate. Fine-tuning instruments (securities and/or foreign exchange operations) have been used only rarely, to smooth the effects on interest rates of unexpected liquidity fluctuations in the market.

There were no automatic facilities in the 1990s. The CNB used, at its discretion, "emergency" and "Lombard" credit facilities to help those central banks that faced short-term liquidity problems. The emergency credit facility was withdrawn in December 1995 and the Lombard facility was converted into a marginal lending facility in May 1997. The interest rate applied to the latter, the "Lombard rate", provides a ceiling for short-term interest rates in the money market. The overnight deposit facility, introduced in December 1998, provides a corresponding floor. The spread between the Lombard and deposit rates had varied prior to 2001, as it was used to signal to the market concerns about future interest rates. Since then, the spread has been fixed at 200 basis points, with the deposit rate 100 basis points below the repo rate and the Lombard rate 100 basis points above.

The CNB has also used reserve requirements but, as in other countries, their importance has waned over time. In July 1997 the CNB started the process of aligning its own requirements with those of the ECB. The reserve ratio was therefore cut from 9.5% to 2% by 1999 and interest has been paid on required reserves since July 2001.

The CNB used to intervene regularly in the foreign exchange market. However, following the enlargement of the fluctuation band in February 1996, intervention has been used only to smooth exchange rate volatility.

Discounting of export bills and rediscounting of commercial bills were used until September 1997 to support exporters and small- or medium-sized businesses.

These measures only slightly reduced capital inflows. In February 1996, the CNB decided to fight the accelerating inflow of debt capital by widening the exchange rate fluctuation band to ±7.5%. This increased the exchange rate risk, making the returns on koruna-denominated investments less attractive to foreign investors. Debt inflows approximately halved in 1996, but still exceeded the amount necessary for covering the current account deficit, leading to a 5.5% appreciation of the koruna (vis-à-vis the central parity of the existing currency basket: 65% DEM, 35% USD) by February 1997. The CNB intervened only sporadically, as it did not want to generate any undesirable volatility of the exchange rate amid ongoing uncertainty regarding its equilibrium level.

The appreciation accelerated disinflation (in May 1997, annual consumer price inflation fell to 6.3%), but on the other hand it reduced the competitiveness of domestic producers (both exporters and producers placing their products on the domestic market). At the same time, the demand side of the economy was overheated. Banks underestimated credit risk and lent readily despite weaknesses in

[4] From August 1995 the excess of a bank's liabilities to non-residents with maturity of less than a year over its corresponding assets was not to exceed 30% of the sum of short-term assets and liabilities, or CZK 500 million. However, the limit was frequently circumvented. Banks lengthened the maturity of the funds drawn abroad slightly above the limit, borrowed abroad through domestic non-banks or used off-balance sheet operations, which were not subject to this limit. The limit was abolished in November 1997.

the legal environment. The two-pronged monetary policy was not able to suppress the accelerating domestic demand and other fiscal and income policies did not provide adequate support.[5]

The insufficiently flexible domestic supply could not meet the accelerating domestic demand, which, in the context of a small open and liberalised economy, resulted in a growing external imbalance. From late 1996, the current account deficit fluctuated between 8% and 9% of GDP, markedly exceeding the generally accepted critical limit (5%). The growing gross external debt was approaching the safety limit of 40% of GDP. Exports began stagnating. These trends reduced foreign exchange reserves to the safety limit of three months' coverage of imports of goods and services. There were also signs that dynamism was being lost on the microeconomic front. Privatisation of large banks was continuously postponed, price deregulation slowed down, restructuring of the corporate sector proceeded only very slowly, the capital market still lacked transparency, the exercise of ownership rights was poor, enforcement of the law was weak, and so forth. In April 1997, the government adopted measures aimed at reducing the fiscal deficit (the so-called first government package), but markets regarded them as insufficient. Against such a background, investors gradually came to believe that macroeconomic developments were unsustainable and expectations of depreciation intensified. Moreover, elements of instability in the domestic political situation and contagion from the currency crises in Southeast Asia also played a role in the emergence of exchange rate turbulence.

The concurrence of the above factors resulted in strong pressures on the Czech koruna in May 1997. In this situation, the CNB was not able to defend the fixed exchange rate effectively despite a radical interest rate increase and massive intervention in the foreign exchange market. The CNB failed to protect the fixed exchange rate, but managed to handle the attack against the Czech koruna so that, compared to the currency shocks in some other countries, it resulted in only a modest depreciation of the exchange rate (by approximately 12% against the central parity of the currency basket). The fixed exchange rate was replaced by a managed floating regime.

3. Monetary policy during a period of strong equity capital inflows

Higher inflationary expectations, coupled with the depreciation of the koruna, pushed inflation to almost 10% by August 1997 and over 13% in early 1998. While floating the currency gave more scope for an independent monetary policy, it became evident that there was no reliable relationship between the money supply and inflation. The money supply was unpredictably related to both the monetary base and inflation, and there were significant lags in the transmission mechanism. The lame results from money targeting led the CNB to switch to inflation targeting from January 1998. Inflation targeting, being more comprehensible, is more likely to anchor inflationary expectations. It can also adapt better to today's fast-changing globalised world.

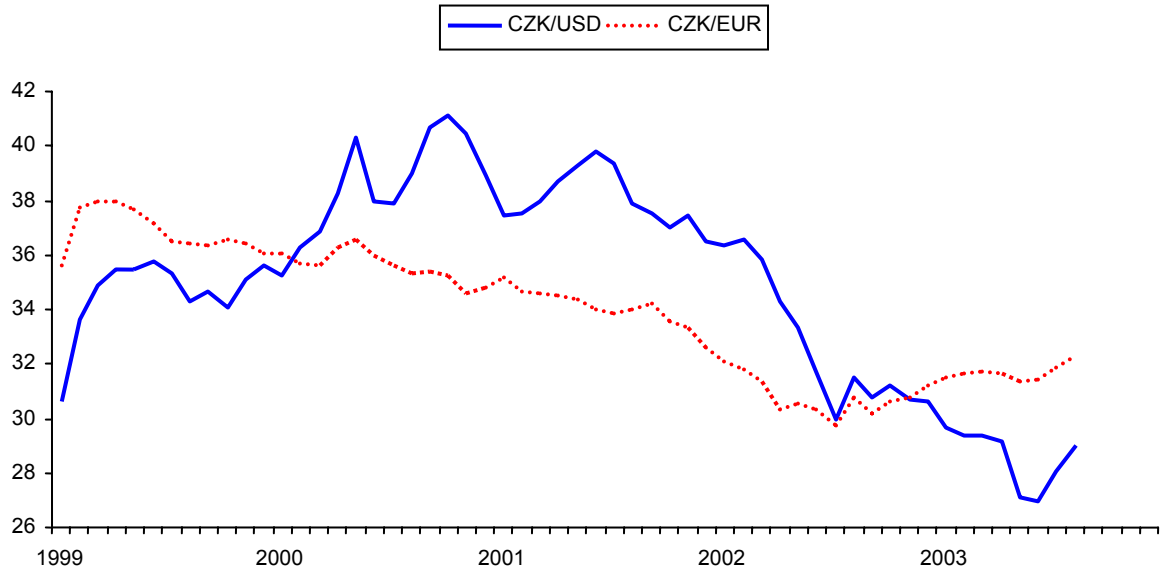
The high inflation, the risk of continuing exchange rate depreciation, the persistent high inflation expectations, the more relaxed setting of macroeconomic policies, and the uncertainty regarding the early elections all hindered the pace of interest rate cuts. As a result of fiscal and monetary restrictions, together with other structural factors, economic growth faltered (GDP contracted in 1997, 1998 and the first half of 1999). From the second half of 1998 until mid-1999, inflation fell rapidly due to the suppressed domestic demand, decreasing inflation expectations and positive supply shocks (low prices of raw materials, exchange rate appreciation). Given these developments, and their impact on inflation forecasts, the CNB rapidly cut interest rates. The key monetary policy interest rate (two-week repo rate) was cut in 13 steps from 15% to 6.5% during this period. Interest rates in the second half of 1999 were reduced more gradually (the repo rate was cut in five steps to 5.25%). A significant decrease of the interest rate differential resulted (in 1997, and particularly in 1998 and 1999) in a net outflow of debt capital. Starting in 1998, however, the inflow of FDI rose sharply (see Table 1) - reflecting a unique concurrence of new investment incentives (capacity-creating FDI), privatisation of state property and sales of private property which some local owners could not keep

[5] The public finances appeared relatively sound (a reported deficit of 1-2% of GDP), but the hidden deficit and the structural component of the deficit were growing. Moreover, according to IMF calculations, a surplus of up to 3% of GDP was required. At the same time, wages were growing far faster than productivity.

after the exchange rate turbulence. The inflow led to accelerating appreciation pressures in the second quarter of 1999 (see Graph 1*)*.

Graph 1

Nominal exchange rate of the koruna against the euro and US dollar since 1999



In this period, the CNB responded to the strengthening koruna by easing interest rates, in line with the forecasts of falling inflation, and attempted to dampen its excessive volatility by intervening in the foreign exchange market. These measures were accompanied by the use of the "privatisation account", described in the following section.

4. Economic policies during increased capital inflow; the "privatisation account"

In 1999, the government sold its holding in the ČSOB bank and converted the proceeds into korunas on the foreign exchange market, leading to a substantial appreciation. In addition, it decided to accelerate privatisation of other state-held assets worth approximately USD 8-9 billion, to be completed by 2003. It was expected that the assets would be sold mostly to non-residents, which would lead to a stronger inflow of capital. Excessive capital inflow would directly stimulate the growth of domestic demand and concurrently, through the exchange rate appreciation, slow down the growth of domestic supply, possibly causing greater external imbalances. This could, especially if economic growth was slow, alarm investors, which would subsequently result in a capital outflow followed by an inevitable exchange rate depreciation. The economy would therefore be exposed, in the medium term, to the risk of higher exchange rate volatility and of a steep depreciation, with adverse consequences for prices, monetary policy and overall economic development. At the end of 1999, the CNB and the government agreed on a joint strategy; see CNB (1999).

The strategy document suggested that, given the growing domestic demand, a tighter fiscal and income policy would be necessary to avoid the CNB having to raise interest rates, which might stimulate debt capital inflows into the country, thus intensifying the appreciation trends. The monetary policy should, however, address the disequilibrium appreciation of the Czech koruna and suppress the exchange rate volatility. Aiming to reduce the appreciation pressures, the government agreed that until the end of 2000, it would refrain from issuing its bonds abroad. As non-debt capital is insensitive to interest rates, and interest rate policy was directed to the inflation target, interventions in the foreign exchange market were chosen as a means of dampening exchange rate volatility. Their effectiveness

was supposed to be supported by the "privatisation account" used for depositing foreign exchange from the large sales of state property.[6] If these funds were drawn down, the CNB had to convert them into korunas by means of a direct purchase into its foreign exchange reserves. Keeping large foreign exchange volumes from entering the market (and moreover in waves and with irregular intervals) sought to dampen the short-term volatility of the exchange rate and assuage the strong appreciation expectations. The funds deposited in the privatisation account were to be used for repayment of debts from the transformation period (eg for consolidation and stabilisation of the banking sector), one-off transformation costs (eg the introduction of the planned new pension system) and costs related to ensuring compatibility with European Union legislation (environment, infrastructure, etc). Drawing on these funds was completely at the discretion of the government and the duty to spread it over a period of time was not included in the agreement.

Table 2

Use of the privatisation account

Billions of koruna

	2000	**2001**[1]	**2002**
Privatised state property	35	81	125
Converted via privatisation account	20	40	125

[1] Includes CZK 20 billion from the unblocking of the Russian debt.

The privatisation account was not fully used until 2002 (Table 2).[7] It was used for holding, and converting into korunas, only about half of the proceeds from sales of state property over the period. It therefore only assisted in suppressing appreciation pressures to a limited degree. The funds were generally in the account for several months, and the continuing appreciation of the koruna led to valuation losses. Moreover, the CNB was buying foreign exchange reserves at a higher price than if the privatisation proceeds had been sold on the market (at the markedly stronger exchange rate). The government was the real beneficiary of the privatisation account as it received more korunas for its foreign exchange.

The strategy discussed in the previous section and the privatisation account proved to be an insufficient anchor for exchange rate expectations, causing a gradual decline in the effectiveness of interventions and assisting in the creation of the appreciation bubble. Excessive appreciation of the koruna at the end of 2001 and the beginning of 2002 came at a very unfortunate time, as monetary conditions were being tightened at a time when the Czech Republic's principal trading partners (the EU states) were in recession. The growing deficit in the public finances also gave rise to concerns, and calls for the privatisation proceeds to cover some public spending at the earliest practicable time. To give a clear signal to the market that the proceeds from the state property privatisation would not in future be let onto the foreign exchange market, causing further appreciation of the koruna, the government and the CNB agreed, at the beginning of 2002, to cooperate in remedying the effects of the state's increased foreign exchange revenues on the foreign exchange market; see CNB (2002).

The approved procedure which followed up on the strategy is based on three types of measures:

(a) *a stock-taking of all existing and potential foreign exchange commitments of the state*. Specifically:

- the Ministry of Finance would not issue bonds denominated in foreign currency in 2002 (later extended to include 2003);

[6] The privatisation account was not used for proceeds from less important sales of state property, municipal, corporate and private property, capacity-creating FDI and privatisation proceeds denominated in korunas.

[7] The same was true of most other measures adopted under the strategy. The growing deficit in the public finances and the persistent pressure on the Ministry of Finance to allow government bonds to be issued abroad can be cited as examples.

- the ministries and selected state-owned institutions would, in cooperation with the Ministry of Finance and the CNB, provide for the settlement of their foreign currency commitments out of the proceeds from privatisation;
- National Property Fund proceeds which were earmarked for the payment of costs and losses of the Czech Consolidation Agency would not be converted in the foreign exchange market;
- foreign exchange commitments of the Czech and Moravian Development and Guarantee Bank would be given priority in conversion from Czech korunas to euros with the Czech Consolidation Agency;
- the Czech Export Bank would provide for its prospective foreign currency asset financing by transacting with the state;
- the Ministry of Finance would leave the funds from the unblocking of the Russian debt on the foreign exchange account with the CNB until at least 31 May 2002, and the conversion of these funds into Czech korunas would take place outside the foreign exchange market - by means of a direct purchase into the CNB's foreign exchange reserves.

(b) *ways of influencing the course of future privatisation transactions*. It was agreed that all future negotiations with privatisation advisers and investors would be directed so that a part of the privatisation price was paid in Czech korunas using a Czech koruna-denominated loan.

(c) *agreement that the CNB would purchase remaining privatisation revenues* (and other foreign exchange) and place them directly in its foreign exchange reserves in cases where the state was unable to leave such revenues in the foreign exchange account with the central bank and a payment in Czech korunas proved impossible to agree with the investor. To eliminate or mitigate the CNB's losses in connection with the sterilisation of these direct conversions, and to address any past unsettled relations between the government and the central bank, CZK 25 billion would be deposited in a non-interest-bearing foreign exchange account with the CNB and any remaining foreign exchange funds of the state (existing or acquired in the future) which would have to be converted into Czech korunas would be purchased directly from the state by the CNB, and added to its foreign exchange reserves. In order to partially compensate the CNB's future losses ensuing from the sterilisation of additional foreign exchange reserves, the CNB would charge the state a fee for direct conversions of foreign exchange revenues, as per an agreed schedule.[8]

The key items of the revised strategy were implemented. The privatisation account was more consistently used (Table 2). However, it took more than six months to convince markets that the government and CNB would implement the strategy in a consistent manner. The excessive appreciation trend was halted in late September 2002.

5. Future interaction of capital flows, exchange rate and monetary policy

Exchange rate movements and capital flows will have a major effect on domestic prices until the Czech Republic joins the euro area and adopts the single currency. Integration of the Czech Republic into European structures will no longer have any significant influence on "non-speculative" capital flows. Sales of state property will proceed according to the plans or needs of the government. However, due to the depletion of the state and private property for sale, future sales to non-residents are unlikely to cause the Czech koruna to appreciate. Capacity-creating FDI, as well as the inflow of capital into the stock market, will be only partially boosted by the EU accession. Inflow of capital into real estate will not be very notable. At present, these inflows are regulated by law only for non-resident

[8] A fee of 3% applied to the first CZK 50 billion, 6% to the next CZK 50 billion and 9% thereafter. The fee schedule was reduced in 2003 and will be phased out by 2007.

individuals, and moreover, with respect to the application of the exception at a maximum permitted length *{unclear}*, we cannot expect the situation to change in the medium term. On the contrary, we cannot exclude that in some areas, net capital outflows may take place as has occurred with shares since 1999 (Table 1).[9]

The EU accession and the subsequent convergence process will not create very favourable conditions for debt capital inflows. The scope for making koruna investment more attractive compared to euro-denominated investment will be further narrowed by the convergence of interest rates with the euro area and by the relative stability of the exchange rate (in conditions which otherwise remain unchanged) as a result of the slower pace of its equilibrium appreciation. Competition from higher interest rates in most transition countries may also play a role. The trend of debt capital flows will be affected mostly by two phenomena. The first is the drawing on foreign resources by the public sector (by means of a growing volume of purchases of government bills and bonds by non-residents or potential issuance of government bonds abroad), which has been gradually increasing since 2001 (Table 1). The second phenomenon is the potential flows of speculative debt capital in connection with so-called convergence plays. These speculations may occur both prior to the setting of the central parity before joining ERM2 and in the period before setting the conversion rate to the euro, ie before the setting of an irrevocably fixed exchange rate which will be applied to conversions of entities' Czech koruna assets and liabilities to the euro.

The efforts to limit the risk of exchange rate fluctuations as a result of convergence plays are one of the reasons why the CNB recommends participation in the ERM2 exchange rate mechanism for no longer than the required minimum period of two years. The ERM2 exchange rate mechanism is regarded merely as the gateway for joining the euro area and a prolonged membership of the mechanism is therefore not desirable. The Czech Republic should join ERM2 only after conditions have been established which enable it to introduce the euro at the time of the assessment of the exchange rate criterion (two years after joining the ERM 2) and to then benefit from its introduction without experiencing any problems. The time limitation, however, only partly reduces the risk of convergence plays. A more important factor is the minimisation of the scope for this type of speculation through a consistent defence against disequilibrium exchange rate development. Stable macroeconomic development (the goal of all macroeconomic policies) will play a major part, together with absorption of foreign exchange inflows from the sales of the remaining (still relatively great) volume of state property and the potential inflow of debt capital drawn by the state on foreign markets to finance the public finance deficit and public debt, through the privatisation account.

Adopting the euro will significantly reduce the risk of exchange rate speculation. Potential speculation will focus only on the relation of the euro to major currencies outside the euro area. It will be the task of the ECB to counter any such speculation, although the CNB may be instructed by the ECB to assist in implementing the ECB's responses.

6. Conclusions

The CNB's experience in managing monetary policy during its relatively short history is in many ways identical to the experience of other central banks in small open economies, where the exchange rate and supply shocks significantly affect domestic prices. Unlike central banks in market economies, central banks in transition economies additionally experience problems in connection with the need for privatisation of vast state assets which, given the shortage of domestic capital, require the involvement of foreign capital on a great scale. A role is also played by the need to respond to many internal shocks, in particular in the early years of transformation, which may tempt central banks to opt for the the dual scheme of monetary policy management based on the fixed exchange rate and money supply targeting. The CNB's experience demonstrates the failure of the dual system in a period of more and more liberalised capital flows and financial markets. A monetary policy attempting to target two nominal variables by means of a single instrument (interest rate) is caught in a vicious circle and is ineffective in managing domestic demand. The declining effectiveness of monetary policy is also due

[9] The only exception was 2001, when global stock markets recorded a significant downturn.

to insufficient support from other macroeconomic policies. The inflexible domestic supply - typical for most transition economies - is not able to meet the accelerating domestic demand, resulting in external imbalances. If this is accompanied by other negative factors, such as problems in the banking sector or contagion, exchange rate turbulence or a currency crisis is very likely.

The CNB's experience also confirms that applying administrative instruments to limit capital inflows is not very effective, partly because ways of circumventing them are quickly found. A marked widening of the fluctuation band for exchange rate movements was also not an adequate solution. The substitution of the dual scheme of monetary policy management with targeting of the fixed exchange rate (though only in the form of a crawling band) is very vulnerable in the fast-changing globalised world of today. However, resorting to one of the autonomous schemes of monetary policy management, including inflation targeting, also carries a degree of risk, as the exchange rate, owing to its continuing major effect on prices, cannot be left out of consideration.

Extraordinary shocks, such as big swings in non-debt capital or FDI inflows, call for extraordinary measures. But unless these are implemented with determination and in a credible manner, their effectiveness is relatively low. Following an agreement with the government, the CNB started to implement a set of measures aimed at suppressing the effects of capital inflows on the exchange rate (specifically the higher volatility and/or excessive appreciation of the Czech koruna). A major role was played by the privatisation account into which foreign currency acquired from large sales of state property had to be deposited. When these funds were withdrawn, the CNB was supposed to convert them into Czech korunas outside the foreign exchange market by purchasing them directly and transferring them to the foreign exchange reserves. The effectiveness of these measures increased only after their consistent application starting from 2002. However, it took more than six months before the excessive appreciation expectations were calmed.

The development of the exchange rate and the capital flows will continue to affect price developments until the Czech Republic joins the euro area. The CNB's analyses show that integration into the European structures may cause the exchange rate to fluctuate only as a result of convergence plays, namely speculations on the level of central parity within the ERM2 mechanism, and later on the conversion rate to be applied in converting Czech koruna assets and liabilities to euros. Also for this reason, the CNB, among other things, recommends participation in the ERM2 system only for the required minimum of two years. A more important challenge, however, is the prevention of a disequilibrium exchange rate development which establishes favourable conditions for convergence plays. Monetary policy and other macroeconomic policies should, first and foremost, provide for macroeconomic stability. This can be also bolstered by a consistent utilisation of the measures agreed with the government, and, within that framework, of the privatisation account. The account should absorb not only the proceeds from privatisation of the remaining state property, but also the inflow of debt capital drawn by the state institutions on foreign markets to cover the public finance deficit and the public debt.

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